What is claimed is:

A masking film, comprising:

a first side having a smooth surface that does not have an adhesive coating;

a second side having a rough surface;

the smooth surface of the first side capable of removably adhering to a textured surface having a surface roughness greater than about 150 Ra, and being comprised of:

from about 30% to about 85% by weight of at least one thermoplastic elastomer having saturated rubber mid-blocks selected from the group consisting of styrene-ethylene/butylene-styrene, styrene-ethylene/propylene-styrene, styrene-ethylene/propylene, and styrene-ethylene/butylene; and

from about 10% to about 60% of a tackifying resin.

- 2. The masking film of claim 1, wherein the smooth surface of the first side further includes a flexible polyolefin as a secondary component.
- 3. The masking film of claim 2, wherein the flexible polyolefin is selected from the group consisting of ethylene, polypropylene, metallecene polyethylene, metallecene polypropylene, and syndiotactic polypropylene.
- 4. The masking film of claim 2, wherein the polyolefin is acid-modified, anhydride-modified or acrylate-modified.
- 5. The masking film of claim 1, further comprising anti-static additives.

- 6. The masking film of claim 1, wherein the rough surface of the second side of the masking film is matte embossed.
- 7. The masking film of claim 1, wherein the rough surface of the second side of the masking film is patterned with embossed and unembossed areas.
- 8. The masking film of claim 1, wherein the masking film comprises at least two layers.
- 9. The masking film of claim 8, wherein the multiple layers are coextruded.
- 10. The masking of claim 9, wherein one or more of the layers includes a pigment.
- 11. The masking film of claim 1, wherein the textured surface of the protected substrate has a roughness within the range of from about 150 to about 1000 Ra.
- 12. The masking film of claim 11, wherein the textured substrate to be protected is selected from the group consisting of polycarbonate, polyurethane, polyester, acrylic, polyvinyl chloride, nylon, polyester (PET, PETG, PEN), glass, ceramic, stone, metal and various coatings.
- 13. The masking film of claim 11 wherein the textured substrate to be protected is selected from the group consisting of carpeting, floor tile, wall tile, architectural trim, prismatic sheets and coatings, glass-beaded sheets and coatings, Fresnel screens and microreplicated surfaces.